July 3, 2002

Mr. Gord Cavdek
Dana Coupled Products
2651 South 600 East
Columbia City, Indiana 46725

Re: Registered Operation Status,
183-15348-00015

Dear Mr. Cavdek:

The application from Dana Coupled Products, received on March 5, 2002 has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following stationary source that manufactures metal automotive parts, located at 2651 South 600 East, Columbia City, Indiana 46725, is classified as registered:

(a) One (1) natural gas-fired boiler, with a heat input capacity of 5.2 million British Thermal Units per hour (mmBtu/hr);

(b) One (1) natural gas-fired barrel line #2 dryer, with a heat input capacity of 1.0 mmBtu/hr;

(c) Two (2) natural gas-fired rack dryers, identified as #1 and #2, each has a heat input capacity of 0.8 mmBtu/hr;

(d) One (1) natural gas-fired open top wash station dryer, with a heat input capacity of 1.1 mmBtu/hr;

(e) One (1) natural gas-fired Bowden wash station dryer, with a heat input capacity of 1.1 mmBtu/hr;

(f) One (1) electric FMT wash station dryer;

(g) Three (3) natural gas-fired braze furnaces identified as #1, #5 and #6, each has a heat input capacity of 0.51 mmBtu/hr;

(h) Three (3) natural gas-fired braze furnaces, identified as #2, #3, and #4, each has a heat input capacity of 0.61 mmBtu/hr;

(i) One (1) natural gas-fired braze furnace, identified as #7, with a heat input capacity of 0.40 mmBtu/hr;

(j) Seven (7) natural gas-fired space heaters, identified as space heaters #1, #2, #3, #4, #5, #6, and #7, each has a heat input capacity of 0.132 mmBtu/hr;

(k) Six (6) natural gas-fired space heaters, identified as space heaters #8, #9, #10, #11, #12, and #13, each has a heat input capacity of 0.20 mmBtu/hr;

(l) Eight (8) natural gas-fired air make-up units, identified as make-up units #1, through #8, each has a heat input capacity of 0.001 mmBtu/hr;

(m) One large wall air make-up unit, with a capacity of 9.1 mmBtu/hr;

(n) Machining operation which consists of nine (9) Kingsbury machines, eleven (11) Acme machines, seven (7) Davenport machines, five (5) Hydromat machines, eight (8) Rismatic machines, two (2) saw machines, one (1) broach machine, one (1) CNC machine, one (1) Barker mill machine, one (1) Hause machine, one (1) Brown & Sharp machine. Twenty (20) of the above mentioned machines are capable of machining 150 pounds per hour (lbs/hr) of brass metal. Thirty- three (33) of the above mentioned machines are capable of machining 50 lbs/hr of steel metal;

(o) One (1) deburring machine #1, identified as DBR #1, with a capacity of 225 lbs/hr;

(p) One (1) deburring machine #2, identified as DBR1-01, with a capacity of 150 lbs/hr;

(q) One (1) deburring machine #3, identified as Pine deburrer, with a capacity of 7 lbs/hr;

(r) One (1) deburring machine #4, identified as Quick Connect, with a capacity of 300 lbs/hr;

(s) Steel forming operation which consists of eleven (11) power steering end formers, thirty-six (36) hydraulic brake benders, and eleven (11) A/C end formers. This operation has a capacity of 100 lbs/hr of steel;

(t) Bending machines which consists of forty-six (46) power steering benders;

(u) Fifteen (15) crimping machines, including:

(1) Seven (7) power steering split die crimpers,
(2) Six (6) power steering radial crimpers, and
(3) Two (2) hydraulic brake split die crimpers;

(v) Three (3) inliner machines;

(w) Eight (8) serators with a total capacity of 75 lbs/hr;

(x) Three (3) parts washers, rated at 1.8 gallons per hour;

(y) Electroplating operation, which consists of barrel lines #1 and #2, rack lines #1 and #2. Barrel line #1 utilizes a soak clean, electro-clean, acid activator, nickel chloride, alkaline zinc, yellow iridescent/bronze chromate and rust inhibitor bath. Barrel line #2, rack line #1 and rack line #2 each utilizes a soak clean, electro-clean, acid activator, alkaline zinc/nickel sulfate, yellow irisdescent/bronze chromate and rust inhibitor bath;

(z) Final assembly operation capable of using 26 solvent markers/day;

(aa) Fifteen (15) small solvent parts washers,

(bb) One (1) Belt Sander,

(cc) Seven (7) electric lift trucks and four (4) propane lift trucks;

(dd) Wastewater pretreatment operations; and

(ee) The following ancillary equipment:

(1) thirty-three (33) hydraulic brake benders,
(2) three (3) auto tube stakers,
(3) seventeen (17) hydraulic tube stakers,
(4) eight (8) air operated tube stakers,
(5) three (3) A/C muffler assembly stakers,
(6) five (5) A/C punch presses,
(7) one (1) liquid turbo charger parts washer which utilizes a non-volatile solution,
(8) seven (7) spot welders, and
(9) five (5) air pressure testers,
(10) one (1) T drill machine,
(11) two (2) Novi tube cutters,
(12) two (2) Haven tube cutters,
(13) one (1) A/C rotary cutter,
(14) one (1) Grovo-Nelson hydraulic brake tube cutting machine,
(15) one (1) quick connect cell tube burnishing machine,
(16) one (1) washer/squasher punch press, and
(17) one (1) end form/tube end punch.

The following conditions shall be applicable:

(1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

(2) Pursuant to 326 IAC 6-3-2 (Process Operations), the PM emissions from the following facilities shall be limited as follows:

Facility ID	Process Weight Rate (tons/hr)	PM Emissions Limit (pounds/hour)
Machining	0.075	0.72
Deburring	0.341	1.99
Electroplating	0.008	0.16
Belt Sander	0.05	0.55

The pounds per hour limitation shall be calculated using the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

(3) Pursuant to 326 IAC 6-2-4 (PM Emissions from Sources of Indirect Heating), the PM emissions from the one (1) 5.2 mmBtu/hr natural gas-fired boiler shall be limited to 0.60 pound per million Btu (lb/mmBtu).

(4) Pursuant to 326 IAC 8-3-2 and 326 IAC 8-3-5, each of the fifteen small solvent parts washers shall be constructed and operated as follows:

(a) Construction Requirements:

The owner or operator shall equip each small parts washer with:

(1) a cover. If the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is agitated or heated, the cover shall be constructed such that it can be operated with one (1) hand;

(2) a facility for draining cleaned articles.

If the volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining.

The drainage facility may be external for applications where an internal type cannot fit into the cleaning system;

(3) a permanent, conspicuous label summarizing the operating requirements specified in Part (b) of this Condition;

(4) a spray application system that achieves a solid fluid stream if the solvents of the washer are applied via spray application; and

(5) one of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kilopascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) a freeboard that attains a freeboard ration of seventy-five hundredths (0.75) or greater,
(B) a water cover when solvent is used is insoluble in, and heavier than, water, or
(C) any other system of demonstrated equivalent control such as a refrigerated chiller or carbon adsorber. Said system shall be submitted to the U.S. EPA as a SIP revision.

(b) Operating Requirements:

The owner or operator shall operate each small parts washer such that:

(1) the parts washer cover is closed whenever parts are not being handled in the cleaner,
(2) all parts cleaned are drained for at least fifteen (15) seconds or until dripping ceases,
(3) all waste solvents generated are stored in covered containers, and
(4) all waste solvents are disposed of or transferred in such a manner that less than or equal to twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

(5) Any change in the liquid used by the two (2) caustic parts washers from caustic soda into liquid that contains VOC, shall make the two parts washers subject to 326 IAC 8-3 (Organic Solvent Degreaser).

The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3)). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

SDF

cc: File - Whitley County
Whitley County Health Department
Air Compliance - Ryan Hillman
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3).

Company Name:	**Dana Coupled Products**
Address:	**2651 South 600 East**
City:	**Columbia City**
Authorized individual:	**Gord Cavdek**
Phone #:	**(219) 248-3200**
Registration #:	**183-15348-00015**

I hereby certify that Dana Coupled Products is still in operation and is in compliance with the requirements of Registration **183-15348-00015**.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	Dana Coupled Products
Source Location:	2651 South 600 East, Columbia City, Indiana 46725
County:	Whitley
SIC Code:	3714
Registration No.:	183-15348-00015
Permit Reviewer:	SDF

The Office of Air Quality (OAQ) has reviewed an application from Dana Coupled Products relating to the operation of their existing automotive parts manufacturing operation.

Request

On March 5, 2002, Dana Coupled Products submitted an application to:

(a) reduce the number of Kingsbury machines from fifteen (15) to nine (9),

(b) change the number of electric and propane lift trucks from six (6) electric lift trucks and six (6) propane lift trucks to seven (7) electric lift trucks and four (4) propane lift trucks,

(c) change the number of power steering benders from forty-four (44) to forty-six (46),

(d) identify the fifteen (15) crimping machines as seven (7) power steering split die crimpers, six (6) power steering radial crimpers, and two (2) hydraulic brake split die crimpers,

(e) add the following emission generating units:

(1) fifteen (15) small parts washing machines, and
(2) one (1) belt sander,

(f) add the following ancillary equipment to the source description:

(1) thirty-three (33) hydraulic brake benders,
(2) three (3) auto tube stakers,
(3) seventeen (17) hydraulic tube stakers,
(4) eight (8) air operated tube stakers,
(5) three (3) A/C muffler assembly stakers,
(6) five (5) A/C punch presses,
(7) one (1) liquid turbo charger parts washer which utilizes a non-volatile solution,
(8) seven (7) spot welders, and
(9) five (5) air pressure testers,

and

(g) identify the following ancillary equipment that wasn't listed in the original registration:

(1) one (1) T drill machine,
(2) two (2) Novi tube cutters,
(3) two (2) Haven tube cutters,
(4) one (1) A/C rotary cutter,
(5) one (1) Grovo-Nelson hydraulic brake tube cutting machine,
(6) one (1) quick connect cell tube burnishing machine,
(7) one (1) washer/squasher punch press, and
(8) one (1) end form/tube end punch.

Existing Approvals

The source was issued registration 183-14330-00015 on April 1, 2001. The source has been operating under this registration since its issuance.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Registration be approved. This recommendation is based on the following facts and conditions. Unless otherwise stated, information used in this review was derived from the application.

Emission Calculations

The unrestricted potential to emit (UPTE) from the source includes natural gas combustion, electroplating, parts washing, machining, deburring, brazing, final assembly, wastewater pretreatment, belt sander, and new parts washer emissions.

The following table summarizes the UPTE from the source after the modification. The detailed UPTE calculations are after the summary table.

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Comb. HAPs (tons/yr)
Natural Gas Combustion	0.20	0.83	0.06	10.95	0.61	9.19	neg.
Electroplating	3.45	3.45	0.024	0.075	-	-	3.03
Existing Parts Washer	-	-	-	-	-	-	-
Machining Operations	0.66	0.66	-	-	-	-	-
Deburring	0.66	0.66	-	-	-	-	-
Brazing	-	-	-	-	1.60	-	-
Propane Lift trucks	0.001	0.001	neg.	0.03	0.001	0.007	neg.
Final Assembly	-	-	-	-	0.31	-	0.31
Wastewater Pretreatment	-	-	-	-	neg.	-	neg.
New Parts Wash and Belt Grinder	0.002	0.001	-	-	0.53	-	neg.
Total	**4.97**	**5.60**	**0.08**	**11.06**	**3.05**	**9.20**	**3.34**

(a) Natural Gas Emissions:

Boiler:

5.2 MMBtu/hr * 8760 hr/yr * 1 E6 Btu/MMBtu * 1/1000 cf/Btu * 1/1E6 MMcf/cf * Ef lb poll/MMcf * 1/2000 ton poll/lb poll = ton poll/yr

	PM 1.9 lb/MMcf	PM10 7.6 lb/MMcf	SO2 0.6 lb/MMcf	NOx 100 lb/MMcf	VOC 5.5 lb/MMcf	CO 84 lb/MMcf
ton/yr	0.04	0.17	0.01	2.28	0.13	1.91

Other Combustion Units:

19.79 MMBtu/hr * 8760 hr/yr * 1 E6 Btu/MMBtu * 1/1000 cf/Btu * 1/1E6 MMcf/cf * Ef lb poll/MMcf * 1/2000 ton poll/lb poll = ton poll/yr

	PM 1.9 lb/MMcf	PM10 7.6 lb/MMcf	SO2 0.6 lb/MMcf	NOx 100 lb/MMcf	VOC 5.5 lb/MMcf	CO 84 lb/MMcf
ton/yr	0.16	0.66	0.05	8.67	0.48	7.28

(b) Electroplating Emissions:

(1) Barrel Line #1:

<u>Using Nickel Chloride:</u>
Maximum Throughput = 0.02 lb/hr
Emission Factor, Ef = 6.7×10^{-6} gr/dscf (SCC 3-09-010-68)

PM/PM10 Emissions = 6.7×10^{-6} gr/dscf * 16,000 scfm * 60 min/hr * lb/7000 gr * 8760 hrs/yr * ton/2000 lb /(1-0.97) = 0.13 ton/yr
PM/PM10/nickel = 0.13 ton/yr (before control)
= 0.004 ton/yr (after control)

<u>Using Alkaline Zinc:</u>
Maximum Throughput = 0.25 gal/hr
Emission Factor, Ef = using equation 2 in chapter 12.20-13 which estimates the controlled emissions from nonchromium plating tanks

$Ef_m = 0.028 * EF_{Cr} * C_m$

$= 0.028 * 4.4 \times 10^{-5}$ grains/dscf * 17 oz/gal
$= 2.1 \times 10^{-5}$ gr/dscf

Where : Ef_m = emission factor for metal "m", grains/dscf,
EF_{Cr} = emission factor for controlled hard chromium electroplating emissions, 4.4×10^{-5} grains/dscf,
C_m = bath concentration for metal "m, 17 oz/gal

PM/PM10 Emissions = 2.1 x 10^{-5} gr/dscf * 16,000 scfm * 60 min/hr * lb/7000 gr * 8760 hrs/yr * ton/2000 lb /(1-0.97)
= 0.42 ton/yr (before control)
= 0.013 ton/yr (after control)

(2) Barrel Line #2, Rack Line #1 and Rack Line #2

Using Alkaline Zinc/Nickel Sulfate:

Maximum Throughput: Barrel Line #2 = 0.34 gal/hr
Rack Line #1 = 0.52 gal/hr
Rack Line #2 = 0.52 gal/hr

Emission Factor, Ef = using equation 1 in chapter 12.20-13 (see above calculation)
= 2.1 x 10^{-5} gr/dscf

PM/PM10 Emissions = 2.1 x 10^{-5} gr/dscf * 26,000 scfm * 60 min/hr * lb/7000 gr * 8760 hrs/yr * ton/2000 lb * 3 scrubbers /(1-0.97) + 2.1 x 10^{-5} gr/dscf * 16,000 scfm * 60 min/hr * lb/7000 gr * 8760 hrs/yr * ton/2000 lb * 2 scrubbers /(1-0.97)
= 2.9 ton/yr (before control)

PM/PM10/Nickel = 2.9 ton/yr (before control)
= 0.1 ton/yr (after control)

(3) Barrel Lines#1, #2, Rack Lines #1 and #2

Using Yellow Iridescent/Bronze Chromate

Maximum Throughput: Barrel Line #1 = 0.15 gal/hr
Barrel Line #2 = 0.46 gal/hr
Rack Line #1 = 0.60 gal/hr
Rack Line #1 = 1.07 gal/hr

The yellow iridescent/bronze chromate bath is not electroplated to the metal parts. This bath is applied via dipping process. Calculation was based on mass balance and the throughput was based on 8760 hrs/yr.

Bronze Chromate 263 S (liquid) = 0.3% of total solution on Rack 2
Black Chromat 265 E (solid) = 0.2% of total solution on Rack 2
Iridescent Chromate 268 S (liquid) = 27.4% of total solution on Barrel 2, Rack 1& Rack 2
Du-Chrome 554 L (liquid) = 1.2% of total solution on Barrel 1
Water (liquid) = Remainder of solution

(263 S) SO_2 Emissions = 275 lbs/yr * 0.0326 * ton/2000 lb
= 0.004 ton/yr

(554 L) SO_2 Emissions = 165 gal/yr * 0.0219 * 1.36 * 8.34 lb/gal * ton/2000 lb
= 0.02 ton/yr

(554 L) NOx Emissions = 165 gal/yr * 0.08 * 1.36 * 8.34 lb/gal * ton/2000 lb
= 0.075 ton/yr

Methodology:
SO_2 Emissions = throughput * % sulfur acid * specific gravity * 8.34 lb/gal * ton/2000 lb
NOx Emissions = throughput * % nitric acid * specific gravity * 8.34 lb/gal * ton/2000 lb

(c) Existing Parts Washing Emissions:

The caustic soda used for parts washing do not contain volatile organic compounds (VOC).

(d) Machining Emissions:

This operation involves brass and steel cutting, which utilizes oil lubricant or coolant to wet the metal. Twenty (20) machines process only brass metal at a maximum rate of 150 lbs/hr. Thirty-three (33) machines process only steel metal at a maximum rate of 50 lbs/hr. Only one (1) brass cutting machine identified as Barker Mill machine is a dry cutting process. Potential emission from the Barker Mill machines was calculated using a mass balance approach derive by Dana Coupled Products. The emission was based on brass metal since this machine does not process steel metal.

Maximum Metal Throughput:	Brass Cutting	=	150 lbs/hr for each of the 20 machines
	Steel Cutting	=	50 lbs/hr for each of the 33 machines

Metal processed	=	150 lbs/hr
Metal Lost	=	0.15 lb/hr (assumed to be all air-borne)
PM/PM10 Emissions	=	0.15 lb/hr * 8760 hrs/yr * ton/2000 lb
	=	0.66 ton/yr

(e) Deburring Emissions:

Deburring machine #1	=	225 pounds per hour
Deburring machine #2	=	150 pounds per hour
Deburring machine #3	=	7 pounds per hour
Deburring machine #4	=	300 pounds per hour
TOTAL	=	682 lbs/hr

Material Lost, % = 0.022%

Only machines #1 and #2 are controlled by drum mounted cyclones

Control Efficiency = 90%

Machines #1 - #4 Uncontrolled PM/PM10 Emissions:

= 682 lbs/hr * 0.00022 * ton/2000 lb * 8760 hrs/yr
= 0.657 tons/yr

Machines #1 & #2 Controlled PM/PM10 Emissions:

= 375 lbs/hr * 0.00022 * ton/2000 lb * 8760 hrs/yr * (1-0.90)
= 0.036 ton/yr

Machines #3 & #4 Uncontrolled/Controlled PM/PM10 Emissions:

= 307 lbs/hr * 0.00022 * ton/2000 lb * 8760 hrs/yr
= 0.29 ton/yr

Machines #1 - #4 total Controlled PM/PM10 Emissions:

= 0.036 ton/yr + 0.29 ton/yr
= 0.332 ton/yr

(f) Brazing Emissions:

(1) Brazing Furnaces #1 - #7 Emissions : See Page 1 of 1 TSD Appendix A

(2) Copper Brazing Paste - 18% VOC by weight

VOC Emissions = 2.0 lbs/hr * 18% VOC by wt. * 8760 hrs/yr * ton/2000 lb
= 1.6 tons/yr

(g) Propane Lift Trucks Emissions:
Using FIRE 6.22, SCC 1-03-010-02
Maximum Throughput = 6,600 (based on 8760 hrs/yr)

Pollutant	Throughput (gallons/yr)	Emission Factor (lb/1000 gallon)	Emissions (tons/yr)
PM	4,400	4×10^{-1}	0.001
PM10	4,400	4×10^{-1}	0.001
NOx	4,400	14.0	0.030
SO2	4,400	1×10^{-1} s	0.000
VOC	4,400	5×10^{-1}	0.001
CO	4,400	1.9	0.007
Methane	4,400	2×10^{-1}	0.001

Methodology:
Emissions = Propane usage, gal/yr * Ef, lb/1000 gal * ton/2000 lb

(h) Final Assembly Emissions:
Process involves the use of “solvent markers”.
Maximum process Throughput:

Bending machines = 80 machines
Crimping machines = 15 machines
Inliner machines = 3 machines
Solvent marker = 26 pens/day

The bending, crimping, and inlining operations involve bending, crimping or inlining various parts onto either brass or steel pieces for final assembly of small automotive parts. There are no emissions generated from these operations.

Solvent Marker:
VOC Emissions = 26 pens/day * 0.065 lb/pen * 100 wt %VOC * 365 days/yr * ton/2000lb
= 0.31 ton/yr

Comb. HAPs = 26 pens/day * 0.065 lb/pen * 100 wt %VOC * 365 days/yr * ton/2000lb
= 0.31 ton/yr

The solvent marker contains ethyl benzene, glycol ether and xylene.

(i) Wastewater Pretreatment:

Wastewater is temporarily stored in several 1000-gallon plastic tanks prior to treatment and release to the municipal waterwaste plant. Using the EPA water8 database a negligible amount of VOC and HAP emissions are generated from this pretreatment process.

(j) New Parts Washing Emissions:

Parts Washers 1 - 6:

6.80 lb VOC/gal * 0.083 gal/wk * 52 wks/yr * 1/2000 tons VOC/lb VOC * 6 = 0.09 tons VOC/yr

Parts Washers 7 - 15:

6.80 lb VOC/gal * 0.278 gal/wk * 52 wk/yr * 1/2000 tons VOC/lb VOC * 9 = 0.44 tons VOC/yr

(k) New Belt Grinder Emissions:

Maximum throughput = 100.00 lb/hr
AP-42 PM emission factor = 0.01 lb/ton
AP-42 PM10 emission factor = 0.004 lb/ton

PM: 100 lb prod/hr * 8760 hr/yr * 1/2000 ton prod/lb prod * 0.01 lb PM/ton prod * 1/2000 ton PM/lb PM = 0.002 ton PM/yr
PM10: 100 lb prod/hr * 8760 hr/yr * 1/2000 ton prod/lb prod * 0.004 lb PM/ton prod * 1/2000 ton PM/lb PM = 0.001 ton PM/yr

The electroplating and deburring PM and PM10 emissions are controlled by emission controls with respective overall control efficiencies of 97% and 90%.

Electroplating:

Nickel: 3.45 tons (PM/PM10)/yr * (1 - 0.97) = 0.10 tons (PM/PM10)/yr

Deburring:

0.66 tons (PM/PM10)/yr * (1 - 0.90) = 0.07 tons (PM/PM10)/yr

The following is a summary of the source emissions after controls, after the proposed modification.

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Comb. HAPs (tons/yr)
Natural Gas Combustion	0.20	0.83	0.06	10.95	0.61	9.19	neg.
Electroplating	0.10	0.10	0.024	0.075	-	-	0.10
Existing Parts Washer	-	-	-	-	-	-	-
Machining Operations	0.66	0.66	-	-	-	-	-
Deburring	0.07	0.07	-	-	-	-	-
Brazing	-	-	-	-	1.60	-	-
Propane Lift trucks	0.001	0.001	neg.	0.03	0.001	0.007	neg.
Final Assembly	-	-	-	-	0.31	-	0.31
Wastewater Pretreatment	-	-	-	-	neg.	-	neg.
New Parts Wash and Belt Grinder	0.002	0.001	-	-	0.53	-	neg.
Total	**1.03**	**1.66**	**0.08**	**11.06**	**3.05**	**9.20**	**0.41**

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the source PTE before controls after the proposed modification based on the above estimated emissions calculations. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	4.97
PM-10	5.60
SO_2	0.08
VOC	3.05
CO	9.20
NO_x	11.06

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

Pollutant	Potential To Emit (tons/year)
Nickel	3.03
Combined Other HAPs	0.31
Total Combined HAPs	3.34

All criteria pollutant UPTE are less than the applicable level of 25 tons/yr, no single HAP emissions exceed the applicable level of 10 tons/yr, and the combined HAP emissions do not exceed the applicable rate of 25 tons/yr. However, the NOx emissions exceed the applicable rate of 10 tons per year. Therefore, the source qualifies for a Registration pursuant to 326 IAC 2-5.5-1(b)(1).

County Attainment Status

The source is located in Whitley County.

Pollutant	Status
PM_{10}	attainment or unclassifiable
SO_2	attainment or unclassifiable
NO_2	attainment or unclassifiable
Ozone	attainment or unclassifiable
CO	attainment or unclassifiable
Lead	attainment or unclassifiable

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Whitley County has been designated as attainment or unclassifiable for ozone. Therefore, the VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2 and 40 CFR 52.21.

(b) Whitley County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

New Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Comb. HAPs (tons/yr)
Source	1.03	1.66	0.08	11.06	3.05	9.20	0.41

PSD Major Source Levels	250	250	250	250	250	250	-
Part 70 Major Source Levels	-	100	100	100	100	100	10/25

(a) This new source is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not one of the 28 listed source categories.

(b) This new source is not a Title V major stationary source because no criteria pollutant potential to emit (PTE) exceeds the applicable level of 100 tons/yr, no single hazardous air pollutant PTE exceeds the applicable levels of 10 tons/yr, and the combined hazardous air pollutant PTE does not exceed the applicable level of 25 tons/yr.

Federal Rule Applicability

New Source Performance Standards (NSPS):

1. 40 CFR Part 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units:

40 CFR 60, Subpart Dc applies to boilers with a maximum heat input capacity of 100 mmBtu/hr or less but greater than 10 mmBtu/hr.

The natural gas-fired boiler, with a heat input capacity of 5.2 million British Thermal Units per hour (mmBtu/hr) is not subject to this NSPS, because it is smaller than 10 mmBtu/hr.

2. Other NSPS:

There are no other New Source Performance Standards, 326 IAC 12, (40 CFR 60) that apply to the proposed source.

National Emission Standards for Hazardous Air Pollutants (NESHAPs):

1. 40 CFR Part 63, Subpart N - National Emission Standards for Chromium Emission from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks:

This NESHAP is not applicable to the source because the electroplating that the source has uses bronze chromate and not chromic acid or chromium anhydride.

2. 40 CFR Part 63, Subpart T - National Emission Standards for Halogenated Solvent Cleaner:

This NESHAP is not applicable to the source's parts washers because they do not use any of the halogenated solvents listed in the rule.

3. 40 CFR Part 63, Subpart DD - National Emissions Standards for Hazardous Air Pollutants form Off-site Waste and Recovery Operations:

The wastewater operation is not subject to this NESHAP because the source is not a major source for HAPs, and the plant does not treat off-site wastewater.

4. Other NESHAPs:

There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

1. 326 IAC 2-6 (Emission Reporting)

   This source is located in Whitley County and the potential to emit VOC emissions is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

2. 326 IAC 5-1 (Visible Emissions Limitations)

   Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

   (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

   (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

1. 326 IAC 6-2-4 (PM Emissions from Sources of Indirect Heating)

   (a) The 5.2 mmBtu/hr natural gas-fired boiler, installed in 1984, is subject to 326 IAC 6-2-4. The PM emission limit is determined using the following equation:

   Pt = $1.09/Q^{0.26}$ Where:Pt =pounds of particulate matter

   = $1.09/5.2^{0.26}$ emission limit in pound per
   = 0.71 lb/mmBtu million Btu (lb/mmBtu) heat input.

   Q = Total source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input.

   Since the calculated PM limit is higher than 0.60, The source will be limited to 0.60 lb/mmBtu.

   1.9 lb/MMCF * MMCF/1000 mmBtu = 0.0019 lb/mmBtu,

   The estimated PM emissions (0.0019 lb/mmBtu) are less than the limit of 0.60 lb/mmBtu. Thus, compliance is determined to be achieved.

   (b) The other various natural gas combustion units of the source are not subject to 326 IAC 6-2 because they are not sources of indirect heating.

2. 326 IAC 6-3-2 (Process Operations)

   This rule mandates a PM emission limit for the following equipment using the following equation:

   Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Facility ID	Process Weight Rate (tons/hr)	PM Emissions Limit (pounds/hour)
Machining	0.075	0.72
Deburring	0.341	1.99
Electroplating	0.008	0.16
Belt Sander	0.05	0.55

The source is in compliance with this rule, because the potential emissions for each of the above facilities are lower than the limits.

3. 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The source is not subject to 326 IAC 2-4.1, because it does not emit single HAP at 10 tons per year or greater nor emits combined HAPs at 25 tons per year or greater. It also predates the applicability of this rule.

4. 326 IAC 8-3 (Organic Solvent Degreasing Operations)

Existing Parts Washers:

This rule is not applicable to the existing parts washers, because they do not use organic solvent in washing metal parts. They use caustic soda which does not contain VOCs.

15 New Parts Washers:

Since the fifteen proposed parts washers are cold cleaning degreasers, utilize organic solvents, and will be constructed after January 1, 1980, the parts washers are subject to the cold cleaner requirements of 326 IAC 8-3-2.

The proposed parts washers are cold cleaning degreasers, utilize organic solvents, do not have remote solvent reservoirs, and are constructed after July 1, 1990. Thus, the parts washers are subject to the requirements of 326 IAC 8-3-5.

The proposed degreasers are not subject to the cold cleaner requirements of 326 IAC 8-3-8 because the units will not be located in Clark, Floyd, Lake, or Porter counties.

Pursuant to 326 IAC 8-3-2 and 326 IAC 8-3-5, each small parts washer shall be constructed and operated as follows:

(a) Construction Requirements:

The owner or operator shall equip each small parts washer with:

(1) a cover. If the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is agitated or heated, the cover shall be constructed such that it can be operated with one (1) hand;

(2) a facility for draining cleaned articles.

If the volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining.

The drainage facility may be external for applications where an internal type cannot fit into the cleaning system;

(3) a permanent, conspicuous label summarizing the operating requirements specified in Part (b) of this Condition;

(4) a spray application system that achieves a solid fluid stream if the solvents of the washer are applied via spray application; and

(5) one of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kilopascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) a freeboard that attains a freeboard ration of seventy-five hundredths (0.75) or greater,
(B) a water cover when solvent is used is insoluble in, and heavier than, water, or
(C) any other system of demonstrated equivalent control such as a refrigerated chiller or carbon adsorber. Said system shall be submitted to the U.S. EPA as a SIP revision.

(b) Operating Requirements:

The owner or operator shall operate each small parts washer such that:

(1) the parts washer cover is closed whenever parts are not being handled in the cleaner,
(2) all parts cleaned are drained for at least fifteen (15) seconds or until dripping ceases,
(3) all waste solvents generated are stored in covered containers, and
(4) all waste solvents are disposed of or transferred in such a manner that less than or equal to twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

Conclusion

The operation of this stationary source that manufactures automotive parts shall be subject to the conditions of the attached **Registration 183-15348-00015.**